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Power accelerates

The Frankfurt energy supplier Mainova testing and operates innovative recovery and storage systems for excess Naturstrom.

June 22, 2015

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The goal is clear: By 2050, 80 percent of the energy required in Germany to come from renewable sources like sun and wind. Today the figure is 12 percent. So there are still huge efforts to undertake in order to achieve the ambitious goal. However, the challenge lies less in the generation. Because with the sun and wind systems already provide today more electricity than is needed. The problem lies in the intelligent utilization and storage.

In these two areas, the Frankfurt utility company has taken the lead in developing and offering innovative solutions. Already in operation is a power-to-heat system. This district heating is generated as an oversized water heater from excess Naturstrom. So the too much electricity produced can reuse relieves the power and carbon dioxide can be saved. In summer the plant covers about one-third of the heat demand at Frankfurt Airport.

The gas grid as a battery of the future

Still in test mode is a power-to-gas plant. This excess electricity from wind and sun is converted by electrolysis into hydrogen and cached in the gas network. Is currently being investigated whether it would be economically, to convert the hydrogen in a further step in methane and fed into the gas grid. Are less renewable energy available, the green gas can be highly efficiently converted back into electricity and heat in cogeneration plants. In order for the gas network could be the battery of the future.

www.mainova.de

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